

इंटरनेट

मानक

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Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 6465 (1972): Trocar, Antral, with Cannula (Tilley Lichtwitz' Pattern) [MHD 4: Ear, Nose and Throat Surgery Instruments]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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AMENDMENT NO. 1 OCTOBER 1979

TO

IS:6465-1972 SPECIFICATION FOR TROCAR, ANTRAL,
WITH CANNULA (TILLEY LICHTWITZ' PATTERN)

Alteration

(Page 2, clause 6.3) - Substitute the following
for the existing clause:

"6.3 Corrosion Resistance - The instrument shall
satisfy the boiling and autoclaving test as specified
in IS:7531-1975 'Method for boiling and autoclaving
test for corrosion resistance of stainless steel
surgical instruments'."

(CPDC 26)

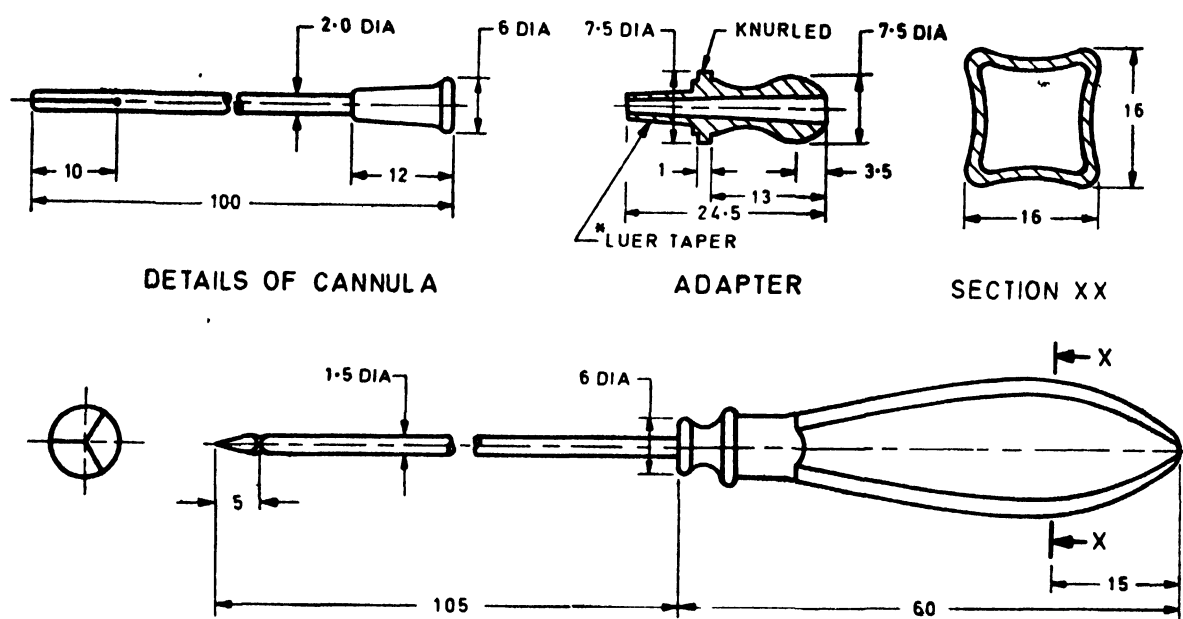
Reprography Unit, ISI, New Delhi



Indian Standard SPECIFICATION FOR TROCAR WITH CANNULA (TILLEY LICHTWITZ' PATTERN)

1. Scope — Specifies dimensional and other requirements of Tilley Lichtwitz' antral trocar with cannula used by ENT surgeons.

2. Shape and Dimensions — As shown in Fig. 1.



*See IS : 3234-1965 'Specification for conical fitting for hypodermic syringes, needles and other medical equipment, Luer type'.

All dimensions in millimetres.

FIG. 1 ANTRAL TROCAR WITH CANNULA (TILLEY LICHTWITZ' PATTERN)

3. Materials

Component	Material	Conforming to
Trocar shank	Stainless steel	Designation 30Cr13 of Schedule V of IS : 1570-1961 'Schedules for wrought steels for general engineering purposes'
Cannula	Stainless steel	Designation 04Cr19Ni9 or 07 Cr19Ni9 of Schedule V of IS : 1570-1961
Adapter	Brass	—
Handle	Stainless steel	Designation 04Cr19Ni9 or 07 Cr19Ni9 of Schedule V of IS : 1570-1961
	or Brass	

4. Workmanship and Finish

4.1 The trocar shank shall be central and its point shall lie on the axis.

4.2 The trocar edges shall be well-cut, clean, sharp and free from nicks, feathers and pits.

Adopted 24 February 1972

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4.3 Handle shall be hollow and shall be fitted to the trocar shank by silver soldering. The silver soldering shall be sound and neat.

4.4 The cannula shall smoothly fit the trocar. The edge of the tip of the cannula shall be sharp and the tip shall be slit and sprung in to snap on the neck of the trocar. When the cannula is snapped on to the trocar neck the cannula tip shall fit snugly to facilitate smooth entry of the trocar-cannula assembly.

4.5 The instrument shall be balanced and shall have a good feel.

4.6 All edges except the trocar point and cannula tip shall be even, rounded and nowhere sharp. All surfaces shall be smooth and free from burrs, pits, cracks and other surface flaws.

4.7 The trocar shank, cannula and the handle when made of stainless steel shall be passivated and polished bright. The adapter and the handle when made of brass shall be plated chromium over nickel and the plating shall conform to Service Grade No. 2 of IS: 4827-1968 'Specification for electroplated coatings of nickel and chromium on copper and copper alloys'.

5. Heat Treatment—The trocar portion shall be hardened and tempered to a hardness of 400 to 500 HV.

6. Tests

6.1 Performance Test—Take a piece of cardboard 1.5 mm thick. Hold the cardboard piece in such a way that it is supported by thumb and first two fingers. The fingers shall support the cardboard piece to enable the trocar to punch through the cardboard. Keeping the trocar point against the cardboard, push the trocar by hand, to make a hole in the cardboard. The hole shall be cleanly made with a moderate push of the hand. The trocar tip and edges shall not get damaged during the test.

6.2 Flexibility Test—Hold the trocar, without the cannula, from the handle in a vice in such a way that the entire length of the trocar shank lies outside the vice. Apply a force at the tip of the trocar to deflect it through 25 mm from its original position. Release the force. The tip shall return to its original position and shall not have acquired a new set.

6.3 Corrosion Resistance Test for Stainless Steel Components—Scrub the sample with soap and warm water, rinse in hot water and then dip in 95 percent ethyl alcohol. Dry the sample. Immerse in copper sulphate solution at room temperature for 6 minutes and wash off with fresh water or wet cotton wool.

Prepare the solution as follows:

Copper sulphate ($\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$)	4.0 g
Sulphuric acid (H_2SO_4) (sp gr 1.84)	10.0 g
Distilled water [see IS: 1070-1960 Specification for water, distilled quality (revised)]	90.0 ml

No red stains or spots on the sample shall be allowed, but dulling of the polished surface may be permitted.

7. Marking—Mark with the following:

- a) Manufacturer's name, initials or recognized trade-mark; and
- b) Words 'Stainless Steel' on the trocar shank and cannula.

7.1 ISI Certification Marking—Details available from the Indian Standards Institution, New Delhi 1.

8. Packing—As agreed to between the purchaser and the supplier ensuring that the trocar and cannula tips are suitably protected.